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The Martian Way
by Isaac Asimov

1

From the doorway of the short corridor between the only two rooms in the travel-head of the spaceship, Mario Esteban Rioz watched sourly as Ted Long adjusted the video dials painstakingly. Long tried a touch clockwise, then a touch counter. The picture was lousy.

Rioz knew it would stay lousy. They were too far from Earth and at a bad position facing the Sun. But then Long would not be expected to know that. Rioz remained standing in the doorway for an additional moment, head bent to clear the upper lintel, body turned half sidewise to fit the narrow opening. Then he jerked into the galley like a cork popping out of a bottle.

"What are you after?" he asked.

"I thought I'd get Hilder," said Long.

Rioz propped his rump on the corner of a table shelf. He lifted a conical can of milk from the companion shelf just above his head. Its point popped under pressure. He swirled it gently as he waited for it to warm.

"What for?" he said. He upended the cone and sucked noisily.

"Thought I'd listen."

"I think it's a waste of power."

Long looked up, frowning. "It's customary to allow free use of personal video sets."

"Within reason," retorted Rioz.

Their eyes met challengingly. Rioz had the rangy body, the gaunt, cheek-sunken face that was almost the hallmark of the Martian Scavenger, those Spacers who patiently haunted the space routes between Earth and Mars. Pale blue eyes were set keenly in the brown, lined face which, in turn, stood darkly out against the white surrounding syntho-fur that lined the up-turned collar of his leathtic space jacket.

Long was altogether paler and softer. He bore some of the marks of the Grounder, although no second-generation Martian could be a Grounder in the sense that Earthmen were. His own collar was thrown back and his dark brown hair freely exposed.

"What do you call within reason?" demanded Long.

Rioz's thin lips grew thinner. He said, "Considering that we're not even going to make expenses this trip, the way it looks, any power drain at all is outside reason."

Long said, "If we're losing money, hadn't you better get back to your post? It's your watch."

Rioz grunted and ran a thumb and forefinger over the stubble on

his chin. He got up and trudged to the door, his soft, heavy boots muting the sound of his steps. He paused to look at the thermostat, then turned with a flare of fury.

"I *thought* it was hot. Where do you think you are?"

Long said, "Forty degrees isn't excessive."

"For you it isn't, maybe. But this is space, not a heated office at the iron mines." Rioz swung the thermostat control down to minimum with a quick thumb movement. "Sun's warm enough."

"The galley isn't on Sunside."

"It'll percolate through, damn it."

Rioz stepped through the door and Long stared after him for a long moment, then turned back to the video. He did not turn up the thermostat.

The picture was still flickering badly, but it would have to do. Long folded a chair down out of the wall. He leaned forward, waiting through the formal announcement, the momentary pause before the slow dissolution of the curtain, the spotlight picking out the well-known bearded figure which grew as it was brought forward until it filled the screen.

The voice, impressive even through the flutings and croakings induced by the electron storms of twenty millions of miles, began:

"Friends! My fellow citizens of Earth…"

2

Rioz's eye caught the flash of the radio signal as he stepped into the pilot room. For one moment, the palms of his hands grew clammy when it seemed to him that it was a radar pip; but that was only his guilt speaking. He should not have left the pilot room while on duty theoretically, though all Scavengers did it. Still, it was the standard nightmare, this business of a strike turning up during just those five minutes when one knocked off for a quick coffee because it seemed certain that space was clear. And the nightmare had been known to happen, too.

Rioz threw in the multi-scanner. It was a waste of power, but while he was thinking about it, he might as well make sure.

Space was clear except for the far-distant echoes from the neighboring ships on the scavenging line.

He hooked up the radio circuit, and the blond, long-nosed head of Richard Swenson, copilot of the next ship on the Marsward side, filled it.

"Hey, Mario," said Swenson.

"Hi. What's new?"

There was a second and a fraction of pause between that and Swen-son's next comment, since the speed of electromagnetic radiation is not infinite.

"What a day I've *had."*

"Something happened?" Rioz asked.

"I had a strike."

"Well, good."

"Sure, if I'd roped it in," said Swenson morosely.

"What happened?"

"Damn it, I headed in the wrong direction."

Rioz knew better than to laugh. He said, "How did you do that?"

"It wasn't my fault. The trouble was the shell was moving way out of the ecliptic. Can you imagine the stupidity of a pilot that can't work the release maneuver decently? How was I to know? I got the distance of the shell and let it go at that. I just assumed its orbit was in the usual trajectory family. Wouldn't you? I started along what I thought was a good line of intersection and it was five minutes before I noticed the distance was still going up. The pips were taking their sweet time returning. So then I took the angular projections of the thing, and it was too late to catch up with it."

"Any of the other boys getting it?"

"No. It's 'way out of the ecliptic and'll keep on going forever. That's not what bothers me so much. It was only an inner shell.

But I hate to tell you how many tons of propulsion I wasted getting up speed and then getting back to station. You should have heard Canute."

Canute was Richard Swenson's brother and partner.

"Mad, huh?" said Rioz.

"Mad? Like to have killed me! But then we've been out five months now and it's getting kind of sticky. You know."

"I know."

"How are you doing, Mario?"

Rioz made a spitting gesture. "About that much this trip. Two shells in the last two weeks and I had to chase each one for six hours."

"Big ones?"

"Are you kidding? I could have scaled them down to Phobos by hand. This is the worst trip I've ever had."

"How much longer are you staying?"

"For my part, we can quit tomorrow. We've only been out two months and it's got so I'm chewing Long out all the time."

There was a pause over and above the electromagnetic lag.

Swenson said, "What's he like, anyway? Long, I mean."

Rioz looked over his shoulder. He could hear the soft, crackly mutter of the video in the galley. "I can't make him out. He says to me about a week after the start of the trip, 'Mario, why are you a Scavenger?' I just look at him and say, 'To make a living. Why do you suppose?' I mean, what the hell kind of a question is that? Why is anyone a Scavenger?

"Anyway, he says, 'That's not it, Mario.' *He's* telling *me,* you see. He says, 'You're a Scavenger because this is part of the Martian way.'"

Swenson said, "And what did he mean by that?"

Rioz shrugged. "I never asked him. Right now he's sitting in there listening to the ultra-microwave from Earth. He's listening to some Grounder called Hilder."

"Hilder? A Grounder politician, an Assemblyman or something, isn't he?"

"That's right. At least, I think that's right. Long is always doing things like that. He brought about fifteen pounds of books with him, all about Earth. Just plain dead weight, you know."

"Well, he's your partner. And talking about partners, I think I'll get back on the job. If I miss another strike, there'll be murder around here."

He was gone and Rioz leaned back. He watched the even green line that was the pulse scanner. He tried the multi-scanner a moment Space was still clear.

He felt a little better. A bad spell is always worse if the Scavengers all about you are pulling in shell after shell; if the shells go

spiraling down to the Phobos scrap forges with everyone's brand welded on except your own. Then, too, he had managed to work off some of his resentment toward Long.

It was a mistake teaming up with Long. It was always a mistake to team up with a tenderfoot. They thought what you wanted was conversation, especially Long, with his eternal theories about Mars and its great new role in human progress. That was the way he said it-Human Progress: the Martian Way; the New Creative Minority. And all the time what Rioz wanted wasn't talk, but a strike, a few shells to call their own.

At that, he hadn't any choice, really. Long was pretty well known down on Mars and made good pay as a mining engineer. He was a friend of Commissioner Sankov and he'd been out on one or two short scavenging missions before. You can't turn a fellow down flat before a tryout, even though it did look funny. Why should a mining engineer with a comfortable job and good money want to muck around in space?

Rioz never asked Long that question. Scavenger partners are forced too close together to make curiosity desirable, or sometimes even safe. But Long talked so much that he answered the question.

"I had to come out here, Mario," he said. "The future of Mars isn't in the mines; it's in space."

Rioz wondered how it would be to try a trip alone. Everyone said it was impossible. Even discounting lost opportunities when one man had to go off watch to sleep or attend to other things, it was well known that one man alone in space would become intolerably depressed in a relatively short while.

Taking a partner along made a six-month trip possible. A regular crew would be better, but no Scavenger could make money on a ship large enough to carry one. The capital it would take in propulsion alone!

Even two didn't find it exactly fun in space. Usually you had to change partners each trip and you could stay out longer with some than with others. Look at Richard and Canute Swenson. They teamed up every five or six trips because they were brothers. And yet whenever they did, it was a case of constantly mounting tension and antagonism after the first week.

Oh well. Space was clear. Rioz would feel a little better if he went back in the galley and smoothed down some of the bickering with Long. He might as well show he was an old spacehand who took the irritations of space as they came.

He stood up, walked the three steps necessary to reach the short, narrow corridor that tied together the two rooms of the spaceship.

3

Once again Rioz stood in the doorway for a moment, watching. Long was intent on the flickering screen.

Rioz said gruffly, "I'm shoving up the thermostat. It's all right—we can spare the power."

Long nodded. "If you like."

Rioz took a hesitant step forward. Space was clear, so to hell with sitting and looking at a blank, green, pipless line. He said, "What's the Grounder been talking about?"

"History of space travel mostly. Old stuff, but he's doing it well. He's giving the whole works—color cartoons, trick photography, stills from old films, everything."

As if to illustrate Long's remarks, the bearded figure faded out of view, and a cross-sectional view of a spaceship flitted onto the screen. Hilder's voice continued, pointing out features of interest that appeared in schematic color. The communications system of the ship outlined itself in red as he talked about it, the storerooms, the proton micropile drive, the cybernetic circuits…

Then Hilder was back on the screen. "But this is only the travel-head of the ship. What moves it? What gets it off the Earth?"

Everyone knew what moved a spaceship, but Hilder's voice was like a drug. He made spaceship propulsion sound like the secret of the ages, like an ultimate revelation. Even Rioz felt a slight tingling of suspense, though he had spent the greater part of his life aboard ship.

Hilder went on. "Scientists call it different names. They call it the Law of Action and Reaction. Sometimes they call it Newton's Third Law. Sometimes they call it Conservation of Momentum. But we don't have to call it any name. We can just use our common sense. When we swim, we push water backward and move forward ourselves. When we walk, we push back against the ground and move forward. When we fly a gyroflivver, we push air backward and move forward.

"Nothing can move forward unless something else moves backward. It's the old principle of 'You can't get something for nothing.'

"Now imagine a spaceship that weighs a hundred thousand tons lifting off Earth. To do that, something else must be moved downward. Since a spaceship is extremely heavy, a great deal of material must be moved downward. So much material, in fact, that there is no place to keep it all aboard ship. A special compartment must be built behind the ship to hold it."

Again Hilder faded out and the ship returned. It shrank and a truncated cone appeared behind it. In bright yellow, words appeared

within it: MATERIAL TO BE THROWN AWAY.

"But now," said Hilder, "the total weight of the ship is much greater. You need still more propulsion and still more."

The ship shrank enormously to add on another larger shell and still another immense one. The ship proper, the travel-head, was a little dot on the screen, a glowing red dot.

Rioz said, "Hell, this is kindergarten stuff."

"Not to the people he's speaking to, Mario," replied Long. "Earth isn't Mars. There must be billions of Earth people who've never even seen a spaceship; don't know the first thing about it."

Hilder was saying, "When the material inside the biggest shell is used up, the shell is detached. It's thrown away, too."

The outermost shell came loose, wobbled about the screen.

"Then the second one goes," said Hilder, "and then, if the trip is a long one, the last is ejected."

The ship was just a red dot now, with three shells shifting and moving, lost in space.

Hilder said, "These shells represent a hundred thousand tons of tungsten, magnesium, aluminum, and steel. They are gone forever from Earth. Mars is ringed by Scavengers, waiting along the routes of space travel, waiting for the cast-off shells, netting and branding them, saving them for Mars. Not one cent of payment reaches Earth for them. They are salvage. They belong to the ship that finds them."

Rioz said, "We risk our investment and our lives. If we don't pick them up, no one gets them. What loss is that to Earth?"

"Look," said Long, "he's been talking about nothing but the drain that Mars, Venus, and the Moon put on Earth. This is just another item of loss."

"They'll get their return. We're mining more iron every year."

"And most of it goes right back into Mars. If you can believe his figures, Earth has invested two hundred billion dollars in Mars and received back about five billion dollars' worth of iron. It's put five hundred billion dollars into the Moon and gotten back a little over twenty-five billion dollars of magnesium, titanium, and assorted light metals. It's put fifty billion dollars into Venus and gotten back nothing. And that's what the taxpayers of Earth are really interested in — tax money out; nothing in."

The screen was filled, as he spoke, with diagrams of the Scavengers on the route to Mars; little, grinning caricatures of ships, reaching out wiry, tenuous arms that groped for the tumbling, empty shells, seizing and snaking them in, branding them MARS PROPERTY in glowing letters, then scaling them down to Phobos.

Then it was Hilder again. "They tell us eventually they will return it all to us. Eventually! Once they are a going concern! We don't know

when that will be. A century from now? A thousand years? A million? 'Eventually.' Let's take them at their word. Someday they will give us back all our metals. Someday they will grow their own food, use their own power, live their own lives.

"But one thing they can never return. Not in a hundred million years. *Water!*

"Mars has only a trickle of water because it is too small. Venus has no water at all because it is too hot. The Moon has none because it is too hot and too small. So Earth must supply not only drinking water and washing water for the Spacers, water to run their industries, water for the hydroponic factories they claim to be setting up—but even water to throw away by the millions of tons.

"What is the propulsive force that spaceships use? What is it they throw out behind so that they can accelerate forward? Once it was the gases generated from explosives. That was very expensive. Then the proton micropile was invented—a cheap power source that could heat up any liquid until it was a gas under tremendous pressure. What is the cheapest and most plentiful liquid available? Why, water, of course.

"Each spaceship leaves Earth carrying nearly a million tons—not pounds, *tons*—of water, for the sole purpose of driving it into space so that it may speed up or slow down.

"Our ancestors burned the oil of Earth madly and wilfully. They destroyed its coal recklessly. We despise and condemn them for that, but at least they had this excuse—they thought that when the need arose, substitutes would be found. And they were right. We have our plankton farms and our proton micropiles.

"But there is no substitute for water. None! There never can be. And when our descendants view the desert we will have made of Earth, what excuse will they find for us? When the droughts come and grow—"

Long leaned forward and turned off the set. He said, "That bothers me. The damn fool is deliberately— What's the matter?"

Rioz had risen uneasily to his feet. "I ought to be watching the pips."

"The hell with the pips." Long got up likewise, followed Rioz through the narrow corridor, and stood just inside the pilot room. "If Hilder carries this through, if he's got the guts to make a real issue out of it—*Wow!"*

He had seen it too. The pip was a Class A, racing after the outgoing signal like a greyhound after a mechanical rabbit.

Rioz was babbling, "Space was clear, I tell you, *clear.* For Mars' sake, Ted, don't just freeze on me. See if you can spot it visually."

Rioz was working speedily and with an efficiency that was the

result of nearly twenty years of scavenging. He had the distance in two minutes. Then, remembering Swenson's experience, he measured the angle of declination and the radial velocity as well.

He yelled at Long, "One point seven six radians. You can't miss it, man."

Long held his breath as he adjusted the vernier. "It's only half a radian off the Sun. It'll only be crescent-lit."

He increased magnification as rapidly as he dared, watching for the one "star" that changed position and grew to have a form, revealing itself to be no star.

"I'm starting, anyway," said Rioz. "We can't wait."

"I've got it. I've got it." Magnification was still too small to give it a definite shape, but the dot Long watched was brightening and dimming rhythmically as the shell rotated and caught sunlight on cross sections of different sizes.

"Hold on."

The first of many fine spurts of steam squirted out of the proper vents, leaving long trails of micro-crystals of ice gleaming mistily in the pale beams of the distant Sun. They thinned out for a hundred miles or more. One spurt, then another, then another, as the Scavenger ship moved out of its stable trajectory and took up a course tangential to that of the shell.

"It's moving like a comet at perihelion!" yelled Rioz. "Those damned Grounder pilots knock the shells off that way on purpose. I'd like to—"

He swore his anger in a frustrated frenzy as he kicked steam backward and backward recklessly, till the hydraulic cushioning of his chair had soughed back a full foot and Long had found himself all but unable to maintain his grip on the guard rail.

"Have a heart," he begged.

But Rioz had his eye on the pips. "If you can't take it, man, stay on Mars!" The steam spurts continued to boom distantly.

The radio came to fife. Long managed to lean forward through what seemed like molasses and closed contact. It was Swenson, eyes glaring.

Swenson yelled, "Where the hell are you guys going? You'll be in my sector in ten seconds."

Rioz said, "I'm chasing a shell."

"In *my* sector?"

"It started in mine and you're not in position to get it. Shut off that radio, Ted."

The ship thundered through space, a thunder that could be heard only within the hull. And then Rioz cut the engines in stages large enough to make Long flail forward. The sudden silence was more ear-

shattering than the noise that had preceded it.

Rioz said, “All right. Let me have the ’scope.”

They both watched. The shell was a definite truncated cone now, rumbling with slow solemnity as it passed along among the stars.

“It’s a Class A shell, all right,” said Rioz with satisfaction. A giant among shells, he thought. It would put them into the black.

Long said, “We’ve got another pip on the scanner. I think it’s Swenson taking after us.”

Rioz scarcely gave it a glance. “He won’t catch us.”

The shell grew larger still, filling the visiplate.

Rioz’s hands were on the harpoon lever. He waited, adjusted the angle microscopically twice, played out the length allotment. Then he yanked, tripping the release.

For a moment, nothing happened. Then a metal mesh cable snaked out onto the visiplate, moving toward the shell like a striking cobra. It made contact, but it did not hold. If it had, it would have snapped instantly like a cobweb strand. The shell was turning with a rotational momentum amounting to thousands of tons. What the cable did do was to set up a powerful magnetic field that acted as a brake on the shell.

Another cable and another lashed out. Rioz sent them out in an almost heedless expenditure of energy.

“I’ll get this one! By Mars, I’ll get this one!”

With some two dozen cables stretching between ship and shell, he desisted. The shell’s rotational energy, converted by breaking into heat, had raised its temperature to a point where its radiation could be picked up by the ship’s meters.

Long said, “Do you want me to put our brand on?”

“Suits me. But you don’t have to if you don’t want to. It’s my watch.”

“I don’t mind.”

Long clambered into his suit and went out the lock. It was the surest sign of his newness to the game that he could count the number of times he had been out in a suit. This was the fifth time.

He went out along the nearest cable, hand over hand, feeling the vibration of the mesh against the metal of his mitten.

He burned their serial number in the smooth metal of the shell. There was nothing to oxidize the steel in the emptiness of space. It simply melted and vaporized, condensing some feet away from the energy beam, turning the surface it touched into a gray, powdery dullness.

Long swung back toward the ship.

Inside again, he took off his helmet, white and thick with frost that collected as soon as he had entered.

The first thing he heard was Swenson's voice coming over the radio in this almost unrecognizable rage: "…straight to the Commissioner. Damn it, there are rules to this game!"

Rioz sat back, unbothered. "Look, it hit my sector. I was late spotting it and I chased it into yours. You couldn't have gotten it with Mars for a backstop. That's all there is to it— You back, Long?"

He cut contact.

The signal button raged at him, but he paid no attention.

"He's going to the Commissioner?" Long asked.

"Not a chance. He just goes on like that because it breaks the monotony. He doesn't mean anything by it. He knows it's our shell. And how do you like that hunk of stuff, Ted?"

"Pretty good."

"Pretty good? It's terrific! Hold on. I'm setting it swinging."

The side jets spat steam and the ship started a slow rotation about the shell. The shell followed it. In thirty minutes, they were a gigantic bolo spinning in emptiness. Long checked the *Ephemeris* for the position of Deimos.

At a precisely calculated moment, the cables released their magnetic field and the shell went streaking off tangentially in a trajectory that would, in a day or so, bring it within pronging distance of the shell stores on the Martian satellite.

Rioz watched it go. He felt good. He turned to Long. "This is one fine day for us."

"What about Hilder's speech?" asked Long.

"What? Who? Oh, that. Listen, if I had to worry about everything some damned Grounder said, I'd never get any sleep. Forget it."

"I don't think we should forget it."

"You're nuts. Don't bother me about it, will you? Get some sleep instead."

4

Ted Long found the breadth and height of the city's main thoroughfare exhilarating. It had been two months since the Commissioner had declared a moratorium on scavenging and had pulled all ships out of space, but this feeling of a stretched-out vista had not stopped thrilling Long. Even the thought that the moratorium was called pending a decision on the part of Earth to enforce its new insistence on water economy, by deciding upon a ration limit for scavenging, did not cast him entirely down.

The roof of the avenue was painted a luminous light blue, perhaps as an old-fashioned imitation of Earth's sky. Ted wasn't sure. The walls were lit with the store windows that pierced it.

Off in the distance, over the hum of traffic and the sloughing noise of people's feet passing him, he could hear the intermittent blasting as new channels were being bored into Mars' crust. All his life he remembered such blastings. The ground he walked on had been part of solid, unbroken rock when he was born. The city was growing and would keep on growing—if Earth would only let it.

He turned off at a cross street, narrower, not quite as brilliantly lit, shop windows giving way to apartment houses, each with its row of lights along the front facade. Shoppers and traffic gave way to slower-paced individuals and to squalling youngsters who had as yet evaded the maternal summons to the evening meal.

At the last minute, Long remembered the social amenities and stopped off at a corner water store.

He passed over his canteen. "Fill 'er up."

The plump storekeeper unscrewed the cap, cocked an eye into the opening. He shook it a little and let it gurgle. "Not much left," he said cheerfully.

"No," agreed Long.

The storekeeper trickled water in, holding the neck of the canteen close to the hose tip to avoid spillage. The volume gauge whirred. He screwed the cap back on.

Long passed over the coins and took his canteen. It clanked against his hip now with a pleasing heaviness. It would never do to visit a family without a full canteen. Among the boys, it didn't matter. Not as much, anyway.

He entered the hallway of No. 27, climbed a short flight of stairs, and paused with his thumb on the signal.

The sound of voices could be heard quite plainly.

One was a woman's voice, somewhat shrill. "It's all right for you to have your Scavenger friends here, isn't it? I'm supposed to be

thankful you manage to get home two months a year. Oh, it's quite enough that you spend a day or two with me. After that, it's the Scavengers again."

"I've been home for a long time now," said a male voice, "and this is business. For Mars' sake, let up, Dora. They'll be here soon."

Long decided to wait a moment before signaling. It might give them a chance to hit a more neutral topic.

"What do I care if they come?" retorted Dora. "Let them hear me. And I'd just as soon the Commissioner kept the moratorium on permanently. You hear me?"

"And what would we live on?" came the male voice hotly. "You tell me that."

"I'll tell you. You can make a decent, honorable living right here on Mars, just like everybody else. I'm the only one in this apartment house that's a Scavenger widow. That's what I am—a widow. I'm worse than a widow, because if I were a widow, I'd at least have a chance to marry someone else— What did you say?"

"Nothing. Nothing at all."

"Oh, I know what you said. Now listen here, Dick Swenson—"

"I only said," cried Swenson, "that now I know why Scavengers usually don't marry."

"You shouldn't have either. I'm tired of having every person in the neighborhood pity me and smirk and ask when you're coming home. Other people can be mining engineers and administrators and even tunnel borers. At least tunnel borers' wives have a decent home life and their children don't grow up like vagabonds. Peter might as well not have a father—"

A thin boy-soprano voice made its way through the door. It was somewhat more distant, as though it were in another room. "Hey, Mom, what's a vagabond?"

Dora's voice rose a notch. "Peter! You keep your mind on your homework."

Swenson said in a low voice, "It's not right to talk this way in front of the kid. What kind of notions will he get about me?"

"Stay home then and teach him better notions."

Peter's voice called out again. "Hey, Mom, I'm going to be a Scavenger when I grow up."

Footsteps sounded rapidly. There was a momentary hiatus in the sounds, then a piercing, "Mom! Hey, Mom! Leggo my ear! What did I do?" and a snuffling silence.

Long seized the chance. He worked the signal vigorously.

Swenson opened the door, brushing down his hair with both hands.

"Hello, Ted," he said in a subdued voice. Then loudly, "Ted's

here, Dora. Where's Mario, Ted?"

Long said, "He'll be here in a while."

Dora came bustling out of the next room, a small, dark woman with a pinched nose, and hair, just beginning to show touches of gray, combed off the forehead.

"Hello, Ted. Have you eaten?"

"Quite well, thanks. I haven't interrupted you, have I?"

"Not at all. We finished ages ago. Would you like some coffee?"

"1 think so." Ted unslung his canteen and offered it.

"Oh, goodness, that's all right. We've plenty of water."

"I insist."

"Well, then—"

Back into the kitchen she went. Through the swinging door, Long caught a glimpse of dishes sitting in Secoterg, the "waterless cleaner that soaks up and absorbs grease and dirt in a twinkling. One ounce of water will rinse eight square feet of dish surface clean as clean. Buy Secoterg. Secoterg just cleans it right, makes your dishes shiny bright, does away with water waste—"

The tune started whining through his mind and Long crushed it with speech. He said, "How's Pete?"

"Fine, fine. The kid's in the fourth grade now. You know I don't get to see him much. Well, sir, when I came back last time, he looked at me and said…"

It went on for a while and wasn't too bad as bright sayings of bright children as told by dull parents go.

The door signal burped and Mario Rioz came in, frowning and red.

Swenson stepped to him quickly. "Listen, don't say anything about shell-snaring. Dora still remembers the time you fingered a Class A shell out of my territory and she's in one of her moods now."

"Who the hell wants to talk about shells?" Rioz slung off a fur-lined jacket, threw it over the back of the chair, and sat down.

Dora came through the swinging door, viewed the newcomer with a synthetic smile, and said, "Hello, Mario. Coffee for you, too?"

"Yeah," he said, reaching automatically for his canteen.

"Just use some more of my water, Dora," said Long quickly. "He'll owe it to me."

"Yeah," said Rioz.

"What's wrong, Mario?" asked Long.

Rioz said heavily, "Go on. Say you told me so. A year ago when Hilder made that speech, you told me so. Say it."

Long shrugged.

Rioz said, "They've set up the quota. Fifteen minutes ago the news came out."

"Well?"

"Fifty thousand tons of water per trip."

"What?" yelled Swenson, burning. "You can't get off Mars with fifty thousand!"

"That's the figure. It's a deliberate piece of gutting. No more scavenging."

Dora came out with the coffee and set it down all around.

"What's all this about no more scavenging?" She sat down very firmly and Swenson looked helpless.

"It seems," said Long, "that they're rationing us at fifty thousand tons and that means we can't make any more trips."

"Well, what of it?" Dora sipped her coffee and smiled gaily. "If you want my opinion, it's a good thing. It's time all you Scavengers found yourselves a nice, steady job here on Mars. I mean it. It's no life to be running all over space—"

"Please, Dora," said Swenson.

Rioz came close to a snort.

Dora raised her eyebrows. "I'm just giving my opinions."

Long said, "Please feel free to do so. But I would like to say something. Fifty thousand is just a detail. We know that Earth—or at least Hilder's party—wants to make political capital out of a campaign for water economy, so we're in a bad hole. We've got to get water somehow or they'll shut us down altogether, right?"

"Well, sure," said Swenson.

"But the question is how, right?"

"If it's only getting water," said Rioz in a sudden gush of words, "there's only one thing to do and you know it. If the Grounders won't give us water, we'll take it. The water doesn't belong to them just because their fathers and grandfathers were too damned sick-yellow ever to leave their fat planet. Water belongs to people wherever they are. We're people and the water's ours, too. We have a right to it."

"How do you propose taking it?" asked Long.

"Easy! They've got oceans of water on Earth. They can't post a guard over every square mile. We can sink down on the night side of the planet any time we want, fill our shells, then get away. How can they stop us?"

"In half a dozen ways, Mario. How do you spot shells in space up to distances of a hundred thousand miles? One thin metal shell in all that space. How? By radar. Do you think there's no radar on Earth? Do you think that if Earth ever gets the notion we're engaged in waterlegging, it won't be simple for them to set up a radar network to spot ships coming in from space?"

Dora broke in indignantly. "I'll tell you one thing, Mario Rioz. My husband isn't going to be part of any raid to get water to keep up his

scavenging with."

"It isn't just scavenging," said Mario. "Next they'll be cutting down on everything else. We've got to stop them now."

"But we don't need their water, anyway," said Dora. "We're not the Moon or Venus. We pipe enough water down from the polar caps for all we need. We have a water tap right in this apartment. There's one in every apartment on this block."

Long said, "Home use is the smallest part of it. The mines use water. And what do we do about the hydroponic tanks?"

"That's right," said Swenson. "What about the hydroponic tanks, Dora? They've got to have water and it's about time we arranged to grow our own fresh food instead of having to live on the condensed crud they ship us from Earth."

"Listen to him," said Dora scornfully. "What do you know about fresh food? You've never eaten any."

"I've eaten more than you think. Do you remember those carrots I picked up once?"

"Well, what was so wonderful about them? If you ask me, good baked protomeal is much better. And healthier, too. It just seems to be the fashion now to be talking fresh vegetables because they're increasing taxes for these hydroponics. Besides, all this will blow over."

Long said, "I don't think so. Not by itself, anyway. Hilder will probably be the next Coordinator, and then things may really get bad. If they cut down on food shipments, too—"

"Well, then," shouted Rioz, "what do we do? I still say take it! Take the water!"

"And I say we can't do that, Mario. Don't you see that what you're suggesting is the Earth way, the Grounder way? You're trying to hold on to the umbilical cord that ties Mars to Earth. Can't you get away from that? Can't you see the Martian way?"

"No, I can't. Suppose you tell me."

"I will, if you'll listen. When we think about the Solar System, what do we think about? Mercury, Venus, Earth, Moon, Mars, Phobos, and Deimos. There you are—seven bodies, that's all. But that doesn't represent 1 per cent of the Solar System. We Martians are right at the edge of the other 99 per cent. Out there, farther from the Sun, there's unbelievable amounts of water!"

The others stared.

Swenson said uncertainly, "You mean the layers of ice on Jupiter and Saturn?"

"Not that specifically, but it *is* water, you'll admit. A thousand-mile-thick layer of water is a lot of water."

"But it's all covered up with layers of ammonia or—or something,

isn't it?" asked Swenson. "Besides, we can't land on the major planets."

"I know that," said Long, "but I haven't said that was the answer. The major planets aren't the only objects out there. What about the asteroids and the satellites? Vesta is a two-hundred-mile-diameter asteroid that's hardly more than a chunk of ice. One of the moons of Saturn is mostly ice. How about that?"

Rioz said, "Haven't you ever been in space, Ted?"

"You know I have. Why do you ask?"

"Sure, I know you have, but you still talk like a Grounder. Have you thought of the distances involved? The average asteroid is a hundred twenty million miles from Mars at the closest. That's twice the Venus-Mars hop and you know that hardly any liners do even that in one jump. They usually stop off at Earth or the Moon. After all, how long do you expect anyone to stay in space, man?"

"I don't know. What's your limit?"

"You know the limit. You don't have to ask me. It's six months. That's handbook data. After six months, if you're still in space, you're psychotherapy meat. Right, Dick?"

Swenson nodded.

"And that's just the asteroids," Rioz went on. "From Mars to Jupiter is three hundred and thirty million miles, and to Saturn it's seven hundred million. How can anyone handle that kind of distance? Suppose you hit standard velocity or, to make it even, say you get up to a good two hundred kilomiles an hour. It would take you—let's see, allowing time for acceleration and deceleration—about six or seven months to get to Jupiter and nearly a year to get to Saturn. Of course, you could hike the speed to a million miles an hour, theoretically, but where would you get the water to do that?"

"Gee," said a small voice attached to a smutty nose and round eyes. "Saturn!"

Dora whirled in her chair. "Peter, march right back into your room!"

"Aw, Ma."

"Don't 'Aw, Ma' me." She began to get out of the chair, and Peter scuttled away.

Swenson said, "Say, Dora, why don't you keep him company for a while? It's hard to keep his mind on homework if we're all out here talking."

Dora sniffed obstinately and stayed put. "I'll sit right here until I find out what Ted Long is thinking of. I tell you right now I don't like the sound of it."

Swenson said nervously, "Well, never mind Jupiter and Saturn. I'm sure Ted isn't figuring on that. But what about Vesta? We could

make it in ten or twelve weeks there and the same back. And two hundred miles in diameter. That's four million cubic miles of ice!"

"So what?" said Rioz. "What do we do on Vesta? Quarry the ice? Set up mining machinery? Say, do you know how long that would take?"

Long said, "I'm talking about Saturn, not Vesta."

Rioz addressed an unseen audience. "I tell him seven hundred million miles and he keeps on talking."

"All right," said Long, "suppose you tell me how you know we can only stay in space six months, Mario?"

"It's common knowledge, damn it."

"Because it's in the *Handbook of Space Flight.* It's data compiled by Earth scientists from experience with Earth pilots and spacemen. You're still thinking Grounder style. You won't think the Martian way."

"A Martian may be a Martian, but he's still a man."

"But how can you be so blind? How many times have you fellows been out for over six months without a break?"

Rioz said, "That's different."

"Because you're Martians? Because you're professional Scavengers?"

"No. Because we're not on a flight. We can put back for Mars any time we want to."

"But you *don't* want to. That's my point. Earthmen have tremendous ships with libraries of films, with a crew of fifteen plus passengers. Still, they can only stay out six months maximum. Martian Scavengers have a two-room ship with only one partner. But we can stick it out more than six months."

Dora said, "I suppose you want to stay in a ship for a year and go to Saturn."

"Why not, Dora?" said Long. "We can do it. Don't you see we can? Earthmen can't. They've got a real world. They've got open sky and fresh food, all the air and water they want. Getting into a ship is a terrible change for them. More than six months is too much for them for that very reason. Martians are different. We've been living on a ship our entire lives.

"That's all Mars is—a ship. It's just a big ship forty-five hundred miles across with one tiny room in it occupied by fifty thousand people. It's closed in like a ship. We breathe packaged air and drink packaged water, which we repurify over and over. We eat the same food rations we eat aboard ship. When we get into a ship, it's the same thing we've known all our lives. We can stand it for a lot more than a year if we have to."

Dora said, "Dick, too?"

“We all can.”

“Well, Dick can’t. It’s all very well for you, Ted Long, and this shell stealer here, this Mario, to talk about jaunting off for a year. You’re not married. Dick is. He has a wife and he has a child and that’s enough for him. He can just get a regular job right here on Mars. Why, my goodness, suppose you go to Saturn and find there’s no water there. How’ll you get back? Even if you had water left, you’d be out of food. It’s the most ridiculous thing I ever heard of.”

“No. Now listen,” said Long tightly. “I’ve thought this thing out. I’ve talked to Commissioner Sankov and he’ll help. But we’ve got to have ships and men. I can’t get them. The men won’t listen to me. I’m green. You two are known and respected. You’re veterans. If you back me, even if you don’t go yourselves, if you’ll just help me sell this thing to the rest, get volunteers—”

“First,” said Rioz grumpily, “you’ll have to do a lot more explaining. Once we get to Saturn, where’s the water?”

“That’s the beauty of it,” said Long. “That’s why it’s got to be Saturn. The water there is just floating around in space for the taking.”

5

When Hamish Sankov had come to Mars, there was no such thing as a native Martian. Now there were two-hundred-odd babies whose grandfathers had been born on Mars—native in the third generation.

When he had come as a boy in his teens, Mars had been scarcely more than a huddle of grounded spaceships connected by sealed underground tunnels. Through the years, he had seen buildings grow and burrow widely, thrusting blunt snouts up into the thin, unbreathable atmosphere. He had seen huge storage depots spring up into which spaceships and their loads could be swallowed whole. He had seen the mines grow from nothing to a huge gouge in the Martian crust, while the population of Mars grew from fifty to fifty thousand.

It made him feel old, these long memories—they and the even dimmer memories induced by the presence of this Earthman before him. His visitor brought up those long-forgotten scraps of thought about a soft-warm world that was as kind and gentle to mankind as the mother's womb.

The Earthman seemed fresh from that womb. Not very tall, not very lean; in fact, distinctly plump. Dark hair with a neat little wave in it, a neat little mustache, and neatly scrubbed skin. His clothing was right in style and as fresh and neatly turned as plastek could be.

Sankov's own clothes were of Martian manufacture, serviceable and clean, but many years behind the times. His face was craggy and lined, his hair was pure white, and his Adam's apple wobbled when he talked.

The Earthman was Myron Digby, member of Earth's General Assembly. Sankov was Martian Commissioner.

Sankov said, "This all hits us hard, Assemblyman."

"It's hit most of us hard, too, Commissioner."

"Uh-huh. Can't honestly say then that I can make it out. Of course, you understand, I don't make out that I can understand Earth ways, for all that I was born there. Mars is a hard place to live, Assemblyman, and you have to understand that. It takes a lot of shipping space just to bring us food, water, and raw materials so we can live. There's not much room left for books and news films. Even video programs can't reach Mars, except for about a month when Earth is in conjunction, and even then nobody has much time to listen.

"My office gets a weekly summary film from Planetary Press. Generally, I don't have time to pay attention to it. Maybe you'd call us provincial, and you'd be right. When something like this happens, all we can do is kind of helplessly look at each other."

Digby said slowly, “You can’t mean that your people on Mars haven’t heard of Hilder’s anti-Waster campaign.”

“No, can’t exactly say that. There’s a young Scavenger, son of a good friend of mine who died in space”—Sankov scratched the side of his neck doubtfully—“who makes a hobby out of reading up on Earth history and things like that. He catches video broadcasts when he’s out in space and he listened to this man Hilder. Near as 1 can make out, that was the first talk Hilder made about Wasters.

“The young fellow came to me with that. Naturally, I didn’t take him very serious. I kept an eye on the Planetary Press films for a while after that, but there wasn’t much mention of Hilder and what there was made him out to look pretty funny.”

“Yes, Commissioner,” said Digby, “it all seemed quite a joke when it started.”

Sankov stretched out a pair of long legs to one side of his desk and crossed them at the ankles. “Seems to me it’s still pretty much of a joke. What’s his argument? We’re using up water. Has he tried looking at some figures? I got them all here. Had them brought to me when this committee arrived.

“Seems that Earth has four hundred million cubic miles of water in its oceans and each cubic mile weighs four and a half billion tons. That’s a lot of water. Now we use some of that heap in space flight. Most of the thrust is inside Earth’s gravitational field, and that means the water thrown out finds its way back to the oceans. Hilder doesn’t figure that in. When he says a million tons of water is used up per flight, he’s a liar. It’s less than a hundred thousand tons.

“Suppose, now, we have fifty thousand flights a year. We don’t, of course; not even fifteen hundred. But let’s say there are fifty thousand. I figure there’s going to be considerable expansion as time goes on. With fifty thousand flights, one cubic mile of water would be lost to space each year. That means that in a million years, Earth would lose *one quarter of 1 per cent* of its total water supply!”

Digby spread his hands, palms upward, and let them drop. “Commissioner, Interplanetary Alloys has used figures like that in their campaign against Hilder, but you can’t fight a tremendous, emotion-filled drive with cold mathematics. This man Hilder has invented a name, ‘Wasters.’ Slowly he has built this name up into a gigantic conspiracy; a gang of brutal, profitseeking wretches raping Earth for their own immediate benefit.

“He has accused the government of being riddled with them, the Assembly of being dominated by them, the press of being owned by them. None of this, unfortunately, seems ridiculous to the average man. He knows all too well what selfish men can do to Earth’s resources. He knows what happened to Earth’s oil during the Time of

Troubles, for instance, and the way topsoil was ruined.

"When a farmer experiences a drought, he doesn't care that the amount of water lost in space flight isn't a droplet in a fog as far as Earth's over-all water supply is concerned. Hilder has given him something to blame and that's the strongest possible consolation for disaster. He isn't going to give that up for a diet of figures."

Sankov said, "That's where I get puzzled. Maybe it's because I don't know how things work on Earth, but it seems to me that there aren't just droughty farmers there. As near as I could make out from the news summaries, these Hilder people are a minority. Why is it Earth goes along with a few farmers and some crackpots that egg them on?"

"Because, Commissioner, there are such things as worried human beings. The steel industry sees that an era of space flight will stress increasingly the light, nonferrous alloys. The various miners' unions worry about extraterrestrial competition. Any Earthman who can't get aluminum to build a prefab is certain that it is because the aluminum is going to Mars. 1 know a professor of archaeology who's an anti-Waster because he can't get a government grant to cover his excavations. He's convinced that all government money is going into rocketry research and space medicine and he resents it."

Sankov said, "That doesn't sound like Earth people are much different from us here on Mars. But what about the General Assembly? Why do they have to go along with Hilder?"

Digby smiled sourly. "Politics isn't pleasant to explain. Hilder introduced this bill to set up a committee to investigate waste in space flight. Maybe three fourths or more of the General Assembly was against such an investigation as an intolerable and useless extension of bureaucracy—which it is. But then how could any legislator be against a mere investigation of waste? It would sound as though he had something to fear or to conceal. It would sound as though he were himself profiting from waste. Hilder is not in the least afraid of making such accusations, and whether true or not, they would be a powerful factor with the voters in the next election. The bill passed.

"And then there came the question of appointing the members of the committee. Those who were against Hilder shied away from membership, which would have meant decisions that would be continually embarrassing. Remaining on the sidelines would make that one that much less a target for Hilder. The result is that I am the only member of the committee who is outspokenly anti-Hilder and it may cost me reelection."

Sankov said, "I'd be sorry to hear that, Assemblyman. It looks as though Mars didn't have as many friends as we thought we had. We wouldn't like to lose one. But if Hilder wins out, what's he after,

anyway?"

"I should think," said Digby, "that that is obvious. He wants to be the next Global Coordinator."

"Think he'll make it?"

"If nothing happens to stop him, he will."

"And then what? Will he drop this Waster campaign then?"

"I can't say. I don't know if he's laid his plans past the Coordinacy. Still, if you want my guess, he couldn't abandon the campaign and maintain his popularity. It's gotten out of hand."

Sankov scratched the side of his neck. "All right. In that case, I'll ask you for some advice. What can we folks on Mars do? You know Earth. You know the situation. We don't. Tell us what to do."

Digby rose and stepped to the window. He looked out upon the low domes of other buildings; red, rocky, completely desolate plain in between; a purple sky and a shrunken sun.

He said, without turning, "Do you people really like it on Mars?"

Sankov smiled. "Most of us don't exactly know any other world, Assemblyman. Seems to me Earth would be something queer and uncomfortable to them."

"But wouldn't Martians get used to it? Earth isn't hard to take after this. Wouldn't your people learn to enjoy the privilege of breathing air under an open sky? You once lived on Earth. You remember what it was like."

"I sort of remember. Still, it doesn't seem to be easy to explain. Earth is just there. It fits people and people fit it. People take Earth the way they find it. Mars is different. It's sort of raw and doesn't fit people. People got to make something out of it. They got to *build* a world, and not take what they find. Mars isn't much yet, but we're building, and when we're finished, we're going to have just what we like. It's sort of a great feeling to know you're building a world. Earth would be kind of unexciting after that."

The Assemblyman said, "Surely the ordinary Martian isn't such a philosopher that he's content to live this terribly hard life for the sake of a future that must be hundreds of generations away."

"No-o, not just like that." Sankov put his right ankle on his left knee and cradled it as he spoke. "Like I said, Martians are a lot like Earthmen, which means they're sort of human beings, and human beings don't go in for philosophy much. Just the same, there's something to living in a growing world, whether you think about it much or not.

"My father used to send me letters when I first came to Mars. He was an accountant and he just sort of stayed an accountant. Earth wasn't much different when he died from what it was when he was born. He didn't see anything happen. Every day was like every other

day, and living was just a way of passing time until he died.

"On Mars, it's different. Every day there's something new—the city's bigger, the ventilation system gets another kick, the water lines from the poles get slicked up. Right now, we're planning to set up a news-film association of our own. We're going to call it Mars Press. If you haven't lived when things are growing all about you, you'll never understand how wonderful it feels.

"No, Assemblyman, Mars is hard and tough and Earth is a lot more comfortable, but seems to me if you take our boys to Earth, they'll be unhappy. They probably wouldn't be able to figure out why, most of them, but they'd feel lost; lost and useless. Seems to me lots of them would never make the adjustment."

Digby turned away from the window and the smooth, pink skin of his forehead was creased into a frown. "In that case, Commissioner, I am sorry for you. For all of you."

"Why?"

"Because I don't think there's anything your people on Mars can do. Or the people on the Moon or Venus. It won't happen now; maybe it won't happen for a year or two, or even for five years. But pretty soon you'll all have to come back to Earth, unless—"

Sankov's white eyebrows bent low over his eyes. "Well?"

"Unless you can find another source of water besides the planet Earth."

Sankov shook his head. "Don't seem likely, does it?"

"Not very."

"And except for that, seems to you there's no chance?"

"None at all."

Digby said that and left, and Sankov stared for a long time at nothing before he punched a combination of the local communiline.

After a while, Ted Long looked out at him.

Sankov said, "You were right, son. There's nothing they can do. Even the ones that mean well see no way out. How did you know?"

"Commissioner," said Long, "when you've read all you can about the Time of Troubles, particularly about the twentieth century, nothing political can come as a real surprise."

"Well, maybe. Anyway, son, Assemblyman Digby is sorry for us, quite a piece sorry, you might say, but that's all. He says we'll have to leave Mars—or else get water somewhere else. Only he thinks that we can't get water somewhere else."

"You know we can, don't you, Commissioner?"

"I know we *might,* son. It's a terrible risk."

"If I find enough volunteers, the risk is our business."

"How is it going?"

"Not bad. Some of the boys are on my side right now. I talked

Mario Rioz into it, for instance, and you know he's one of the best."

"That's just it—the volunteers will be the best men we have. I hate to allow it."

"If we get back, it will be worth it."

"If! It's a big word, son."

"And a big thing we're trying to do."

"Well, I gave my word that if there was no help on Earth, I'd see that the Phobos water hole lets you have all the water you'll need. Good luck."

6

Half a million miles above Saturn, Mario Rioz was cradled on nothing and sleep was delicious. He came out of it slowly and for a while, alone in his suit, he counted the stars and traced lines from one to another.

At first, as the weeks flew past, it was scavenging all over again, except for the gnawing feeling that every minute meant an additional number of thousands of miles away from all humanity. That made it worse.

They had aimed high to pass out of the ecliptic while moving through the Asteroid Belt. That had used up water and had probably been unnecessary. Although tens of thousands of worldlets look as thick as vermin in two-dimensional projection upon a photographic plate, they are nevertheless scattered so thinly through the quadrillions of cubic miles that make up their conglomerate orbit that only the most ridiculous of coincidences would have brought about a collision.

Still, they passed over the Belt and someone calculated the chances of collision with a fragment of matter large enough to do damage. The value was so low, so impossibly low, that it was perhaps inevitable that the notion of the "space-float" should occur to someone.

The days were long and many, space was empty, only one man was needed at the controls at any one time. The thought was a natural.

First, it was a particularly daring one who ventured out for fifteen minutes or so. Then another who tried half an hour. Eventually, before the asteroids were entirely behind, each ship regularly had its off-watch member suspended in space at the end of a cable.

It was easy enough. The cable, one of those intended for operations at the conclusion of their journey, was magnetically attached at both ends, one to the space suit to start with. Then you clambered out the lock onto the ship's hull and attached the other end there. You paused awhile, clinging to the metal skin by the electromagnets in your boots. Then you neutralized those and made the slightest muscular effort.

Slowly, ever so slowly, you lifted from the ship and even more slowly the ship's larger mass moved an equivalently shorter distance downward. You floated incredibly, weightlessly, in solid, speckled black. When the ship had moved far enough away from you, your gauntleted hand, which kept touch upon the cable, tightened its grip slightly. Too tightly, and you would begin moving back toward the

ship and it toward you. Just tightly enough, and friction would halt you. Because your motion was equivalent to that of the ship, it seemed as motionless below you as though it had been painted against an impossible background while the cable between you hung in coils that had no reason to straighten out.

It was a half-ship to your eye. One half was lit by the light of the feeble Sun, which was still too bright to look at directly without the heavy protection of the polarized space-suit visor. The other half was black on black, invisible.

Space closed in and it was like sleep. Your suit was warm, it renewed its air automatically, it had food and drink in special containers from which it could be sucked with a minimal motion of the head, it took care of wastes appropriately. Most of all, more than anything else, there was the delightful euphoria of weightlessness.

You never felt so well in your life. The days stopped being too long, they weren't long enough, and there weren't enough of them.

They had passed Jupiter's orbit at a spot some 30 degrees from its then position. For months, it was the brightest object in the sky, always excepting the glowing white pea that was the Sun. At its brightest, some of the Scavengers insisted they could make out Jupiter as a tiny sphere, one side squashed out of true by the night shadow.

Then over a period of additional months it faded, while another dot of light grew until it was brighter than Jupiter. It was Saturn, first as a dot of brilliance, then as an oval, glowing splotch.

("Why oval?" someone asked, and after a while, someone else said, "The rings, of course," and it was obvious.)

Everyone space-floated at all possible times toward the end, watching Saturn incessantly.

("Hey, you jerk, come on back in, damn it. You're on duty." "Who's on duty? I've got fifteen minutes more by my watch." "You set your watch back. Besides, I gave you twenty minutes yesterday." "You wouldn't give two minutes to your grandmother." "Come on in, damn it, or I'm coming out anyway." "All right, I'm coming. Holy howlers, what a racket over a lousy minute." But no quarrel could possibly be serious, not in space. It felt too good.)

Saturn grew until at last it rivaled and then surpassed the Sun. The rings, set at a broad angle to their trajectory of approach, swept grandly about the planet, only a small portion being eclipsed. Then, as they approached, the span of the rings grew still wider, yet narrower as the angle of approach constantly decreased.

The larger moons showed up in the surrounding sky like serene fireflies.

Mario Rioz was glad he was awake so that he could watch again.

Saturn filled half the sky, streaked with orange, the night shadow

cutting it fuzzily nearly one quarter of the way in from the right. Two round little dots in the brightness were shadows of two of the moons. To the left and behind him (he could look over his left shoulder to see, and as he did so, the rest of his body inched slightly to the right to conserve angular momentum) was the white diamond of the Sun.

Most of all he liked to watch the rings. At the left, they emerged from behind Saturn, a tight, bright triple band of orange light. At the right, their beginnings were hidden in the night shadow, but showed up closer and broader. They widened as they came, like the flare of a horn, growing hazier as they approached, until, while the eye followed them, they seemed to fill the sky and lose themselves.

From the position of the Scavenger fleet just inside the outer rim of the outermost ring, the rings broke up and assumed their true identity as a phenomenal cluster of solid fragments rather than the tight, solid band of light they seemed.

Below him, or rather in the direction his feet pointed, some twenty miles away, was one of the ring fragments. It looked like a large, irregular splotch, marring the symmetry of space, three quarters in brightness and the night shadow cutting it like a knife. Other fragments were farther off, sparkling like Stardust, dimmer and thicker, until, as you followed them down, they became rings once more.

The fragments were motionless, but that was only because the ships had taken up an orbit about Saturn equivalent to that of the outer edge of the rings.

The day before, Rioz reflected, he had been on that nearest fragment, working along with more than a score of others to mold it into the desired shape. Tomorrow he would be at it again.

Today—today he was space-floating.

"Mario?" The voice that broke upon his earphones was questioning.

Momentarily Rioz was flooded with annoyance. Damn it, he wasn't in the mood for company.

"Speaking," he said.

"I thought I had your ship spotted. How are you?"

"Fine. That you, Ted?"

"That's right," said Long.

"Anything wrong on the fragment?"

"Nothing. I'm out here floating."

"You?"

"It gets me, too, occasionally. Beautiful, isn't it?"

"Nice," agreed Rioz.

"You know, I've read Earth books—"

"Grounder books, you mean." Rioz yawned and found it difficult

under the circumstances to use the expression with the proper amount of resentment.

"—and sometimes I read descriptions of people lying on grass," continued Long. "You know that green stuff like thin, long pieces of paper they have all over the ground down there, and they look up at the blue sky with clouds in it. Did you ever see any films of that?"

"Sure. It didn't attract me. It looked cold."

"I suppose it isn't, though. After all, Earth is quite close to the Sun, and they say their atmosphere is thick enough to hold the heat. I must admit that personally I would hate to be caught under open sky with nothing on but clothes. Still, I imagine they like it."

"Grounders are nuts!"

"They talk about the trees, big brown stalks, and the winds, air movements, you know."

"You mean drafts. They can keep that, too."

"It doesn't matter. The point is they describe it beautifully, almost passionately. Many times I've wondered, 'What's it really like? Will I ever feel it or is this something only Earthmen can possibly feel?' I've felt so often that I was missing something vital. Now I know what it must be like. It's this. Complete peace in the middle of a beauty-drenched universe."

Rioz said, "They wouldn't like it. The Grounders, I mean. They're so used to their own lousy little world they wouldn't appreciate what it's like to float and look down on Saturn." He flipped his body slightly and began swaying back and forth about his center of mass, slowly, soothingly.

Long said, "Yes, I think so too. They're slaves to their planet. Even if they come to Mars, it will only be their children that are free. There'll be starships someday; great, huge things that can carry thousands of people and maintain their self-contained equilibrium for decades, maybe centuries. Mankind will spread through the whole Galaxy. But people will have to live their lives out on shipboard until new methods of interstellar travel are developed, so it will be Martians, not planet-bound Earthmen, who will colonize the Universe. That's inevitable. It's got to be. It's the Martian way."

But Rioz made no answer. He had dropped off to sleep again, rocking and swaying gently, half a million miles above Saturn.

7

The work shift of the ring fragment was the tail of the coin. The weightlessness, peace, and privacy of the space-float gave place to something that had neither peace nor privacy. Even the weightlessness, which continued, became more a purgatory than a paradise under the new conditions.

Try to manipulate an ordinarily non-portable heat projector. It could be lifted despite the fact that it was six feet high and wide and almost solid metal, since it weighed only a fraction of an ounce. But its inertia was exactly what it had always been, which meant that if it wasn't moved into position very slowly, it would just keep on going, taking you with it. Then you would have to hike the pseudo-grav field of your suit and come down with a jar.

Keralski had hiked the field a little too high and he came down a little too roughly, with the projector coming down with him at a dangerous angle. His crushed ankle had been the first casualty of the expedition.

Rioz was swearing fluently and nearly continuously. He continued to have the impulse to drag the back of his hand across his forehead in order to wipe away the accumulating sweat. The few times that he had succumbed to the impulse, metal had met silicone with a clash that rang loudly inside his suit, but served no useful purpose. The desiccators within the suit were sucking at maximum and, of course, recovering the water and restoring ion-exchanged liquid, containing a careful proportion of salt, into the appropriate receptacle.

Rioz yelled, "Damn it, Dick, wait till I give the word, will you?"

And Swenson's voice rang in his ears, "Well, how long am I supposed to sit here?"

"Till I say," replied Rioz.

He strengthened pseudo-grav and lifted the projector a bit. He released pseudo-grav, insuring that the projector would stay in place for minutes even if he withdrew support altogether. He kicked the cable out of the way (it stretched beyond the close "horizon" to a power source that was out of sight) and touched the release.

The material of which the fragment was composed bubbled and vanished under its touch. A section of the lip of the tremendous cavity he had already carved into its substance melted away and a roughness in its contour had disappeared.

"Try it now," called Rioz.

Swenson was in the ship that was hovering nearly over Rioz's head.

Swenson called, "All clear?"

"I told you to go ahead."

It was a feeble flicker of steam that issued from one of the ship's forward vents. The ship drifted down toward the ring fragment. Another flicker adjusted a tendency to drift sidewise. It came down straight.

A third flicker to the rear slowed it to a feather rate.

Rioz watched tensely. "Keep her coming. You'll make it. You'll make it."

The rear of the ship entered the hole, nearly filling it. The bellying walls came closer and closer to its rim. There was a grinding vibration as the ship's motion halted.

It was Swenson's turn to curse. "It doesn't fit," he said.

Rioz threw the projector groundward in a passion and went flailing up into space. The projector kicked up a white crystalline dust all about it, and when Rioz came down under pseudo-grav, he did the same.

He said, "You went in on the bias, you dumb Grounder."

"I hit it level, you dirt-eating farmer."

Backward-pointing side jets of the ship were blasting more strongly than before, and Rioz hopped to get out of the way.

The ship scraped up from the pit, then shot into space half a mile before forward jets could bring it to a halt.

Swenson said tensely, "We'll spring half a dozen plates if we do this once again. Get it right, will you?"

"I'll get it right. Don't worry about it. Just you come in right."

Rioz jumped upward and allowed himself to climb three hundred yards to get an over-all look at the cavity. The gouge marks of the ship were plain enough. They were concentrated at one point halfway down the pit. He would get that.

It began to melt outward under the blaze of the projector.

Half an hour later the ship snuggled neatly into its cavity, and Swenson, wearing his space suit, emerged to join Rioz.

Swenson said, "If you want to step in and climb out of the suit, I'll take care of the icing."

"It's all right," said Rioz. "I'd just as soon sit here and watch Saturn."

He sat down at the lip of the pit. There was a six-foot gap between it and the ship. In some places about the circle, it was two feet; in a few places, even merely a matter of inches. You couldn't expect a better fit out of handwork. The final adjustment would be made by steaming ice gently and letting it freeze into the cavity between the lip and the ship.

Saturn moved visibly across the sky, its vast bulk inching below the horizon.

Rioz said, “How many ships are left to put in place?”

Swenson said, “Last I heard, it was eleven. We’re in now, so that means only ten. Seven of the ones that are placed are iced in. Two or three are dismantled.”

“We’re coming along fine.”

“There’s plenty to do yet. Don’t forget the main jets at the other end. And the cables and the power lines. Sometimes I wonder if we’ll make it. On the way out, it didn’t bother me so much, but just now I was sitting at the controls and I was saying, ‘We won’t make it. We’ll sit out here and starve and die with nothing but Saturn over us.’ It makes me feel—”

He didn’t explain how it made him feel. He just sat there.

Rioz said, “You think too damn much.”

“It’s different with you,” said Swenson. “I keep thinking of Pete—and Dora.”

“What for? She said you could go, didn’t she? The Commissioner gave her that talk on patriotism and how you’d be a hero and set for life once you got back, and she said you could go. You didn’t sneak out the way Adams did.”

“Adams is different. That wife of his should have been shot when she was born. Some women can make hell for a guy can’t they? She didn’t want him to go—but she’d probably rather he didn’t come back if she can get his settlement pay.”

“What’s your kick, then? Dora wants you back, doesn’t she?”

Swenson sighed. “I never treated her right.”

“You turned over your pay, it seems to me. I wouldn’t do that for any woman. Money for value received, not a cent more.”

“Money isn’t it. I get to thinking out here. A woman likes company. A kid needs his father. What am I doing ’way out here?”

“Getting set to go home.”

“Ah-h, you don’t understand.”

8

Ted Long wandered over the ridged surface of the ring fragment with his spirits as icy as the ground he walked on. It had all seemed perfectly logical back on Mars, but that was Mars. He had worked it out carefully in his mind in perfectly reasonable steps. He could still remember exactly how it went.

It didn't take a ton of water to move a ton of ship. It was not mass equals mass, but mass times velocity equals mass times velocity. It didn't matter, in other words, whether you shot out a ton of water at a mile a second or a hundred pounds of water at twenty miles a second. You got the same final velocity out of the ship.

That meant the jet nozzles had to be made narrower and the steam hotter. But then drawbacks appeared. The narrower the nozzle, the more energy was lost in friction and turbulence. The hotter the steam, the more refractory the nozzle had to be and the shorter its life. The limit in that direction was quickly reached.

Then, since a given weight of water could move considerably more than its own weight under the narrow-nozzle conditions, it paid to be big. The bigger the water-storage space, the larger the size of the actual travel-head, even in proportion. So they started to make liners heavier and bigger. But then the larger the shell, the heavier the bracings, the more difficult the weldings, the more exacting the engineering requirements. At the moment, the limit in that direction had been reached also.

And then he had put his finger on what had seemed to him to be the basic flaw—the original unswervable conception that the fuel had to be placed *inside* the ship; the metal had to be built to encircle a million tons of water.

Why? Water did not have to be water. It could be ice, and ice could be shaped. Holes could be melted into it. Travel-heads and jets could be fitted into it. Cables could hold travel-heads and jets stiffly together under the influence of magnetic field-force grips.

Long felt the trembling of the ground he walked on. He was at the head of the fragment. A dozen ships were blasting in and out of sheaths carved in its substance, and the fragment shuddered under the continuing impact.

The ice didn't have to be quarried. It existed in proper chunks in the rings of Saturn. That's all the rings were—pieces of nearly pure ice, circling Saturn. So spectroscopy stated and so it had turned out to be. He was standing on one such piece now, over two miles long, nearly one mile thick. It was almost half a billion tons of water, all in one piece, and he was standing on it.

But now he was face to face with the realities of life. He had never told the men just how quickly he had expected to set up the fragment as a ship, but in his heart, he had imagined it would be two days. It was a week now and he didn't dare to estimate the remaining time. He no longer even had any confidence that the task was a possible one. Would they be able to control jets with enough delicacy through leads slung across two miles of ice to manipulate out of Saturn's dragging gravity?

Drinking water was low, though they could always distill more out of the ice. Still, the food stores were not in a good way either.

He paused, looked up into the sky, eyes straining. *Was* the object growing larger? He ought to measure its distance. Actually, he lacked the spirit to add that trouble to the others. His mind slid back to greater immediacies.

Morale, at least, was high. The men seemed to enjoy being out Saturnway. They were the first humans to penetrate this far, the first to pass the asteroids, the first to see Jupiter like a glowing pebble to the naked eye, the first to see Saturn—like that.

He didn't think fifty practical, case-hardened, shell-snatching Scavengers would take time to feel that sort of emotion. But they did. And they were proud.

Two men and a half-buried ship slid up the moving horizon as he walked.

He called crisply, "Hello, there!"

Rioz answered, "That you, Ted?"

"You bet. Is that Dick with you?"

"Sure. Come on, sit down. We were just getting ready to ice in and we were looking for an excuse to delay."

"I'm not," said Swenson promptly. "When will we be leaving, Ted?"

"As soon as we get through. That's no answer, is it?"

Swenson said dispiritedly, "I suppose there isn't any other answer."

Long looked up, staring at the irregular bright splotch in the sky.

Rioz followed his glance. "What's the matter?"

For a moment, Long did not reply. The sky was black otherwise and the ring fragments were an orange dust against it. Saturn was more than three fourths below the horizon and the rings were going with it. Half a mile away a ship bounded past the icy rim of the planetoid into the sky, was orange-lit by Saturn-light, and sank down again.

The ground trembled gently.

Rioz said, "Something bothering you about the Shadow?"

They called it that. It was the nearest fragment of the rings, quite

close considering that they were at the outer rim of the rings, where the pieces spread themselves relatively thin. It was perhaps twenty miles off, a jagged mountain, its shape clearly visible.

"How does it look to you?" asked Long.

Rioz shrugged. "Okay, I guess. I don't see anything wrong."

"Doesn't it seem to be getting larger?"

"Why should it?"

"Well, doesn't it?" Long insisted.

Rioz and Swenson stared at it thoughtfully.

"It does look bigger," said Swenson.

"You're just putting the notion into our minds," Rioz argued. "If it were getting bigger, it would be coming closer."

"What's impossible about that?"

"These things are on stable orbits."

"They were when we came here," said Long. "There, did you feel that?"

The ground had trembled again.

Long said, "We've been blasting this thing for a week now. First, twenty-five ships landed on it, which changed its momentum right there. Not much, of course. Then we've been melting parts of it away and our ships have been blasting in and out of it—all at one end, too. In a week, we may have changed its orbit just a bit. The two fragments, this one and the Shadow, might be converging."

"It's got plenty of room to miss us in." Rioz watched it thoughtfully. "Besides, if we can't even tell for sure that it's getting bigger, how quickly can it be moving? Relative to us, I mean."

"It doesn't have to be moving quickly. Its momentum is as large as ours, so that, however gently it hits, we'll be nudged completely out of our orbit, maybe in toward Saturn, where we don't want to go. As a matter of fact, ice has a very low tensile strength, so that both planetoids might break up into gravel."

Swenson rose to his feet. "Damn it, if I can tell how a shell is moving a thousand miles away, I can tell what a mountain is doing twenty miles away." He turned toward the ship.

Long didn't stop him.

Rioz said, "There's a nervous guy."

The neighboring planetoid rose to zenith, passed overhead, began sinking. Twenty minutes later, the horizon opposite that portion behind which Saturn had disappeared burst into orange flame as its bulk began lifting again.

Rioz called into his radio, "Hey Dick, are you dead in there?"

"I'm checking," came the muffled response.

"Is it moving?" asked Long.

"Yes."

"Toward us?"

There was a pause. Swenson's voice was a sick one. "On the nose, Ted. Intersection of orbits will take place in three days."

"You're crazy!" yelled Rioz.

"I checked four times," said Swenson.

Long thought blankly, What do we do now?

9

Some of the men were having trouble with the cables. They had to be laid precisely; their geometry had to be very nearly perfect for the magnetic field to attain maximum strength. In space, or even in air, it wouldn't have mattered. The cables would have lined up automatically once the juice went on.

Here it was different. A gouge had to be plowed along the planetoid's surface and into it the cable had to be laid. If it were not lined up within a few minutes of arc of the calculated direction, a torque would be applied to the entire planetoid, with consequent loss of energy, none of which could be spared. The gouges then had to be redriven, the cables shifted and iced into the new positions.

The men plodded wearily through the routine.

And then the word reached them: "All hands to the jets!"

Scavengers could not be said to be the type that took kindly to discipline. It was a grumbling, growling, muttering group that set about disassembling the jets of the ships that yet remained intact, carrying them to the tail end of the planetoid, grubbing them into position, and stringing the leads along the surface.

It was almost twenty-four hours before one of them looked into the sky and said, "Holy jeepers!" followed by something less printable.

His neighbor looked and said, "I'll be damned!"

Once they noticed, all did. It became the most astonishing fact in the Universe.

"Look at the Shadow!"

It was spreading across the sky like an infected wound. Men looked at it, found it had doubled its size, wondered why they hadn't noticed that sooner.

Work came to a virtual halt. They besieged Ted Long.

He said, "We can't leave. We don't have the fuel to see us back to Mars and we don't have the equipment to capture another planetoid. So we've got to stay. Now the Shadow is creeping in on us because our blasting has thrown us out of orbit. We've got to change that by continuing the blasting. Since we can't blast the front end any more without endangering the ship we're building, let's try another way."

They went back to work on the jets with a furious energy that received impetus every half hour when the Shadow rose again over the horizon, bigger and more menacing than before.

Long had no assurance that it would work. Even if the jets would respond to the distant controls, even if the supply of water, which depended upon a storage chamber opening directly into the icy body of the planetoid, with built-in heat projectors steaming the propulsive

fluid directly into the driving cells, were adequate, there was still no certainty that the body of the planetoid without a magnetic cable sheathing would hold together under the enormously disruptive stresses.

"Ready!" came the signal in Long's receiver.

Long called, "Ready!" and depressed the contact.

The vibration grew about him. The star field in the visiplate trembled.

In the rearview, there was a distant gleaming spume of swiftly moving ice crystals.

"It's blowing!" was the cry.

It kept on blowing. Long dared not stop. For six hours, it blew, hissing, bubbling, steaming into space; the body of the planetoid converted to vapor and hurled away.

The Shadow came closer until men did nothing but stare at the mountain in the sky, surpassing Saturn itself in spectacularity. Its every groove and valley was a plain scar upon its face. But when it passed through the planetoid's orbit, it crossed more than half a mile behind its then position.

The steam jet ceased.

Long bent in his seat and covered his eyes. He hadn't eaten in two days. He could eat now, though. Not another planetoid was close enough to interrupt them, even if it began an approach that very moment.

Back on the planetoid's surface, Swenson said, "All the time I watched that damned rock coming down, I kept saying to myself, 'This can't happen. We can't let it happen.' "

"Hell," said Rioz, "we were all nervous. Did you see Jim Davis? He was green. I was a little jumpy myself."

"That's not it. It wasn't just—dying, you know. I was thinking— I know it's funny, but I can't help it—I was thinking that Dora warned me I'd get myself killed, she'll never let me hear the last of it. Isn't that a crummy sort of attitude at a time like that?"

"Listen," said Rioz, "you wanted to get married, so you got married. Why come to me with your troubles?"

10

The flotilla, welded into a single unit, was returning over its mighty course from Saturn to Mars. Each day it flashed over a length of space it had taken nine days outward.

Ted Long had put the entire crew on emergency. With twenty-five ships embedded in the planetoid taken out of Saturn's rings and unable to move or maneuver independently, the co-ordination of their power sources into unified blasts was a ticklish problem. The jarring that took place on the first day of travel nearly shook them out from under their hair.

That, at least, smoothed itself out as the velocity raced upward under the steady thrust from behind. They passed the one-hundred-thousand-mile-an-hour mark late on the second day, and climbed steadily toward the million-mile mark and beyond.

Long's ship, which formed the needle point of the frozen fleet, was the only one which possessed a five-way view of space. It was an uncomfortable position under the circumstances. Long found himself watching tensely, imagining somehow that the stars would slowly begin to slip backward, to whizz past them, under the influence of the multi-ship's tremendous rate of travel.

They didn't, of course. They remained nailed to the black backdrop, their distance scorning with patient immobility any speed mere man could achieve.

The men complained bitterly after the first few days. It was not only that they were deprived of the space-float. They were burdened by much more than the ordinary pseudo-gravity field of the ships, by the effects of the fierce acceleration under which they were living. Long himself was weary to death of the relentless pressure against hydraulic cushions.

They took to shutting off the jet thrusts one hour out of every four and Long fretted.

It had been just over a year that he had last seen Mars shrinking in an observation window from this ship, which had then been an independent entity. What had happened since then? Was the colony still there?

In something like a growing panic, Long sent out radio pulses toward Mars daily, with the combined power of twenty-five ships behind it. There was no answer. He expected none. Mars and Saturn were on opposite sides of the Sun now, and until he mounted high enough above the ecliptic to get the Sun well beyond the line connecting himself and Mars, solar interference would prevent any signal from getting through.

High above the outer rim of the Asteroid Belt, they reached maximum velocity. With short spurts of power from first one side jet, then another, the huge vessel reversed itself. The composite jet in the rear began its mighty roaring once again, but now the result was deceleration.

They passed a hundred million miles over the Sun, curving down to intersect the orbit of Mars.

A week out of Mars, answering signals were heard for the first time, fragmentary, ether-torn, and incomprehensible, but they were coining from Mars. Earth and Venus were at angles sufficiently different to leave no doubt of that.

Long relaxed. There were still humans on Mars, at any rate.

Two days out of Mars, the signal was strong and clear and Sankov was at the other end.

Sankov said, “Hello, son. It’s three in the morning here. Seems like people have no consideration for an old man. Dragged me right out of bed.”

“I’m sorry, sir.”

“Don’t be. They were following orders. I’m afraid to ask, son. Anyone hurt? Maybe dead?”

“No deaths, sir. Not one.”

“And-and the water? Any left?”

Long said, with an effort at nonchalance, “Enough.”

“In that case, get home as fast as you can. Don’t take any chances, of course.”

“There’s trouble, then.”

“Fair to middling. When will you come down?”

“Two days. Can you hold out that long?”

“I’ll hold out.”

Forty hours later Mars had grown to a ruddy-orange ball that filled the ports and they were in the final planet-landing spiral.

“Slowly,” Long said to himself, “slowly.” Under these conditions, even the thin atmosphere of Mars could do dreadful damage if they moved through it too quickly.

Since they came in from well above the ecliptic, their spiral passed from north to south. A polar cap shot whitely below them, then the much smaller one of the summer hemisphere, the large one again, the small one, at longer and longer intervals. The planet approached closer, the landscape began to show features.

“Prepare for landing!” called Long.

11

Sankov did his best to look placid, which was difficult considering how closely the boys had shaved their return. But it had worked out well enough.

Until a few days ago, he had no sure knowledge that they had survived. It seemed more likely—inevitable, almost—that they were nothing but frozen corpses somewhere in the trackless stretches from Mars to Saturn, new planetoids that had once been alive.

The Committee had been dickering with him for weeks before the news had come. They had insisted on his signature to the paper for the sake of appearances. It would look like an agreement, voluntarily and mutually arrived at. But Sankov knew well that, given complete obstinacy on his part, they would act unilaterally and be damned with appearances. It seemed fairly certain that Hilder's election was secure now and they would take the chance of arousing a reaction of sympathy for Mars.

So he dragged out the negotiations, dangling before them always the possibility of surrender.

And then he heard from Long and concluded the deal quickly.

The papers had lain before him and he had made a last statement for the benefit of the reporters who were present.

He said, "Total imports of water from Earth are twenty million tons a year. This is declining as we develop our own piping system. If I sign this paper agreeing to an embargo, our industry will be paralyzed, any possibilities of expansion will halt. It looks to me as if that can't be what's in Earth's mind, can it?"

Their eyes met his and held only a hard glitter. Assemblyman Digby had already been replaced and they were unanimous against him.

The Committee Chairman impatiently pointed out, "You have said all this before."

"I know, but right now I'm kind of getting ready to sign and I want it clear in my head. Is Earth set and determined to bring us to an end here?"

"Of course not. Earth is interested in conserving its irreplaceable water supply, nothing else."

"You have one and a half quintillion tons of water on Earth."

The Committee Chairman said, "We cannot spare water."

And Sankov had signed.

That had been the final note he wanted. Earth had one and a half quintillion tons of water and could spare none of it.

Now, a day and a half later, the Committee and the reporters

waited in the spaceport dome. Through thick, curving windows, they could see the bare and empty grounds of Mars Spaceport.

The Committee Chairman asked with annoyance, “How much longer do we have to wait? And, if you don’t mind, what are we waiting for?”

Sankov said, “Some of our boys have been out in space, out past the asteroids.”

The Committee Chairman removed a pair of spectacles and cleaned them with a snowy-white handkerchief. “And they’re returning?”

“They are.”

The Chairman shrugged, lifted his eyebrows in the direction of the reporters.

In the smaller room adjoining, a knot of women and children clustered about another window. Sankov stepped back a bit to cast a glance toward them. He would much rather have been with them, been part of their excitement and tension. He, like them, had waited over a year now. He, like them, had thought, over and over again, that the men must be dead.

“You see that?” said Sankov, pointing.

“Hey!” cried a reporter. “It’s a ship!”

A confused shouting came from the adjoining room.

It wasn’t a ship so much as a bright dot obscured by a drifting white cloud. The cloud grew larger and began to have form. It was a double streak against the sky, the lower ends billowing out and upward again. As it dropped still closer, the bright dot at the upper end took on a crudely cylindrical form.

It was rough and craggy, but where the sunlight hit, brilliant highlights bounced back.

The cylinder dropped toward the ground with the ponderous slowness characteristic of space vessels. It hung suspended on those blasting jets and settled down upon the recoil of tons of matter hurling downward like a tired man dropping into his easy chair.

And as it did so, a silence fell upon all within the dome. The women and children in one room, the politicians and reporters in the other remained frozen, heads craned incredulously upward.

The cylinder’s landing flanges, extending far below the two rear jets, touched ground and sank into the pebbly morass. And then the ship was motionless and the jet action ceased.

But the silence continued in the dome. It continued for a long time.

Men came clambering down the sides of the immense vessel, inching down, down the two-mile trek to the ground, with spikes on their shoes and ice axes in their hands. They were gnats against the

blinding surface.

One of the reporters croaked, “What is it?”

“That,” said Sankov calmly, “happens to be a chunk of matter that spent its time scooting around Saturn as part of its rings. Our boys fitted it out with travel-head and jets and ferried it home. It just turns out the fragments in Saturn’s rings are made up out of ice.”

He spoke into a continuing deathlike silence. “That thing that looks like a spaceship is just a mountain of hard water. If it were standing like that on Earth, it would be melting into a puddle and maybe it would break under its own weight. Mars is colder and has less gravity, so there’s no such danger.

“Of course, once we get this thing really organized, we can have water stations on the moons of Saturn and Jupiter and on the asteroids. We can scale in chunks of Saturn’s rings and pick them up and send them on at the various stations. Our Scavengers are good at that sort of thing.

“We’ll have all the water we need. That one chunk you see is just under a cubic mile—or about what Earth would send us in two hundred years. The boys used quite a bit of it coming back from Saturn.

They made it in five weeks, they tell me, and used up about a hundred million tons. But, Lord, that didn’t make any dent at all in that mountain. Are you getting all this, boys?”

He turned to the reporters. There was no doubt they were getting it.

He said, “Then get this, too. Earth is worried about its water supply. It only has one and a half quintillion tons. It can’t spare us a single ton out of it. Write down that we folks on Mars are worried about Earth and don’t want anything to happen to Earth people. Write down that we’ll sell water to Earth. Write down that we’ll let them have million-ton lots for a reasonable fee. Write down that in ten years, we figure we can sell it in cubic-mile lots. Write down that Earth can quit worrying because Mars can sell it all the water it needs and wants.”

The Committee Chairman was past hearing. He was feeling the future rushing in. Dimly he could see the reporters grinning as they wrote furiously.

Grinning.

He could hear the grin become laughter on Earth as Mars turned the tables so neatly on the anti-Wasters. He could hear the laughter thunder from every continent when word of the fiasco spread. And he could see the abyss, deep and black as space, into which would drop forever the political hopes of John Hilder and of every opponent of space flight left on Earth—his own included, of course.

In the adjoining room, Dora Swenson screamed with joy, and Peter, grown two inches, jumped up and down, calling, “Daddy! Daddy!”

Richard Swenson had just stepped off the extremity of the flange and, face showing clearly through the clear silicone of the headpiece, marched toward the dome.

“Did you ever see a guy look so happy?” asked Ted Long. “Maybe there’s something in this marriage business.”

“Ah, you’ve just been out in space too long,” Rioz said.